

# **Root Scaling study**

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#### What is it?

- Technical study to determine impact on root name system when new records are added to root zone
  - IP version 6 (AAAA records)
  - DNSSEC (several new types of records
  - IDN TLDs (TLD labels use strings of form "XN -"
  - New TLDs
- In security terms, this is a risk assessment



## Why is this study important?

- Provisioning and publication of root zone must maintain stringent objectives
  - "zero error"
  - robust and resilient to attack/corruption/delay.
  - Agility
    - Adaptable to changes in technology and policy



### Who is involved in study

- RSSAC, SSAC and ICANN staff
- Root scaling study Steering Group
  - Representatives from RSSAC, SSAC and staff
- Root Scaling Study Team (RSST)
  - Outside, paid team of experts
  - Information gathering, modeling, recommendations



## What will they study

- Addition of IPv6 to glue records
- DNSSEC signing the root zone
- Addition of IDN TLDs
- Addition of new TLDs
  - Potential for inclusion at an accelerated rate
- Impact of accumulated growth of the root zone
  - Is there additional risk if we do all these things at the same time?



#### Status

- RSST report is complete
- RSSAC and SSAC reviewing reports from study teams
  - Some differences of opinion. Will submit separate recommendations to the Board

